

United States Environmental Protection Agency
Region IX
POLLUTION REPORT

Date: Thursday, May 14, 2009
From: Rich Martyn, Will Duncan III

To: Mark Mjoness, EPA HQ
Daniel Meer, US EPA R9
Craig Tiballi, Ecology & Environment
Sherry Fielding, EPA HQ
Clancy Tenley, EPA R9

Subject: Pad Building and Soil Mitigation
Cane Valley Navajo Radioactive Structures
Cane Valley, AZ/UT border, AZ
Latitude: 36.9497000
Longitude: -109.8600000

POLREP No.:	4	Site #:	09RU
Reporting Period:	01-23-2009 thru 05-14-2009	D.O. #:	0229043
Start Date:	11/4/2008	Response Authority:	CERCLA
Mob Date:	11/3/2008	Response Type:	Time-Critical
Demob Date:		NPL Status:	Non NPL
Completion Date:		Incident Category:	Removal Action
CERCLIS ID #:	NNN000908623	Contract #	EPW0702
RCRIS ID #:			

Site Description

The Cane Valley Navajo Radioactive Structures Site is located within the Navajo Nation Indian Reservation, straddling the Arizona and Utah state line. Structures in three other regional areas (Cove, Red Valley, Teec Nos Pos and Tuba City) have also been identified for separate removal actions.

The Site consists of 13 structures and 3 yards situated on 12 residential properties known as "homesites." Four of the 13 structures are currently occupied. In winter 2007-2008, U.S. EPA and Navajo Nation EPA, assessed 56 homesites including 113 structures. Overall, 27 structures and 12 yards require response actions. These efforts have all been conducted in partial fulfillment of the Agency's commitment under the multi-agency Health and Environmental Impacts of Uranium Contamination Five-year Plan.

Persons occupying contaminated structures are at risk of exposures to external gamma and alpha ionizing radiation by way of radon, radium-226 and uranium contamination. Exposures to alpha ionizing radiation due to the presence of radium-226 and radon, pose an increased risk of toxic effects including cancer.

In November of 2008 EPA, USCG, ERRS Contractor and the START contractor mobilized to Cane Valley and began structure demolition and soil excavation activities. Details of these activities can be referenced in POLREPs 1-3. EPA, USCG and contractors demobilized from the site on November 21, 2008.

Current Activities

In late January, 2009 the EPA and the ERRS contractor mobilized to the Site to perform transportation and disposal activities. Stockpiled soil and construction and demolition material was loaded into 49 trucks and transported to San Juan County Landfill in Aztec, NM. Reference the Wastestream section for actual volumes. The material was transported under a Special Waste manifest and was classified as a non-regulated waste.

In February and April 2009 EPA and NNEPA traveled to Cane Valley to meet with Structure owners and discuss compensation options. Current Status of Compensation agreements are as follows

EPA Structure Rebuild Option – 6 signed agreements
Financial Settlement Option – 4 signed agreements

There are only two pending compensation agreements. The EPA OSC is working with NNEPA and EPA's Office of Regional Counsel to facilitate these settlements; they are identified as Homesite ID # HS-0012 and Homesite ID # HS-0030.

On April 28, 2009, EPA, USCG and the ERRS and START contractor met in Cane Valley to kick off removal activities. Activities included the construction of six separate earthen pads for structure foundations and excavation of a soil "hotspot" on Homesite ID # HS-0008. Representatives on site included 9 ERRS contractors (including 1 RM), 1 USCG Pacific Strike Team member, 2 START contractors, and OSCs R. Martyn and W. Duncan.

Following a site safety discussion, the ERRS staged equipment at the homesites where pads were going to be built and the START began identifying nearby areas where soil could be excavated and used as backfill. The START used a Ludlum model ratemeter with a 3x3 NaI detector to survey these areas. The perimeters of the clean areas were flagged so that a archeologist could clear the area for excavation. A total of 28,878 square feet of surface area was cleared by the START contractor.

Activities Between April 29 – May 1 2009

Weather: Temperatures ranged between 75 and 85 degrees with some cloud cover and no rain.

ERRS Contractor: The ERRS contractor had two crews working at different homesites. One crew worked on building earthen pads while the other crew began excavation of the hotspot on Homesite ID # HS-0008. Building an Earthen pad involves excavating the footprint to a depth of 3 feet, and then backfilling the excavation, compacting the soil every six inches. The over-excavation and compaction effort is to minimize settlement of the structure foundation. By May 1 The ERRS contractor had completed the excavation of the hotspot and one structure pad at Homesite ID # HS-0008. The excavation revealed that although there was some non-native material mixed in with the soil, there was also a natural formation at 2 feet below ground surface that had radiation levels above the background.

The ERRS contractor was directed to backfill the excavation with clean fill. The Clean fill shielded the radiation in the natural formation dropping the surface level readings from over two times background to just over background levels. The structure pad was then built on the homesite where the radiation levels were determined to be at background.

START Contractor: In addition to identifying potential borrow areas, the START set up several high volume samplers and collected air samples during excavation activities. Particulate filters were analyzed with an alpha and beta counter to determine if they exceeded Health and Safety action levels. None of the samples collected exceed background.

Activities Between May 2 – May 11, 2009

Weather: Temperatures ranged between 80 and 90 degrees with no cloud cover and no rain.

The ERRS Contractor utilizing two crews completed building earthen pads at the following Homesite ID #s:

HS-0008
HS-0010
HS-0014
HS-0018
HS-0019

ERRS repaired the road between Homesite ID # HS-0018 and Homesite ID # HS-0008.

The START identified additional areas of clean soil to be used for earthen pads. START demobilized from the site on 05/07/09.

ERT representative Fred Stroud was on site to oversee contractor efforts.

Activities Between May 12 – May 16

Weather: Temperatures ranged between 75 and 85 degrees with no cloud cover and no rain.

The ERRS contractor sent a crew to start work in Teec Nos Pos. The remaining crew finished building

the earthen pad at Homesite ID # HS-0025. ERRS began loading trucks with the unregulated waste from Homesite ID # HS-0018. A total of 49 truckloads of material were transported off of Homesite ID # HS-0018. The ERRS demobilized on May 16, 2009.

During this period, OSC Duncan conducted oversight of contractor activities and signed "special waste" manifests for T&D of excavated material from Homesite ID # HS-0018.

USCG PST representative Seekins demobilized from the site on May 13, 2009.

Planned Removal Actions

Financial settlements for two families still require negotiation. The ERRS contractor has contracted with Southwest Traditional Homes to build 6 replacement structures in Cane Valley. Concrete foundations need to be poured and structures need to be built over the next several months.

Next Steps

Utilities for Homesite ID # HS-0016 will need to be established. Power and water are close to the homesite, but NTUA will need to extend the existing utilities to the new structure and install meters. Arrangements for installation of a septic system are also required. Homesite ID # HS-0018 also requires the utilities to be relocated to where the new structure will be built.

Key Issues

Not Applicable

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	\$2,800,000.00	\$824,759.78	\$1,975,240.22	70.54%
RST/START	\$80,000.00	\$0.00	\$80,000.00	100.00%
Intramural Costs				
USEPA - Direct (Region, HQ)	\$10,000.00	\$0.00	\$10,000.00	100.00%
USEPA - InDirect	\$1,038,643.00	\$0.00	\$1,038,643.00	100.00%
Total Site Costs	\$3,928,643.00	\$824,759.78	\$3,103,883.22	79.01%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

Disposition of Wastes

Waste Stream	Quantity	Manifest #	Disposal Facility
Non-Regulated Material - Soil	324 cubic yards	Various	Waste Management of New Mexico, Inc. San Jaun County Regional Landfill Aztec, New Mexico
Non-Regulated Material- Construction and Demolition	360 cubic yards	Various	Waste Management of New Mexico, Inc. San Jaun County Regional Landfill Aztec, New Mexico

